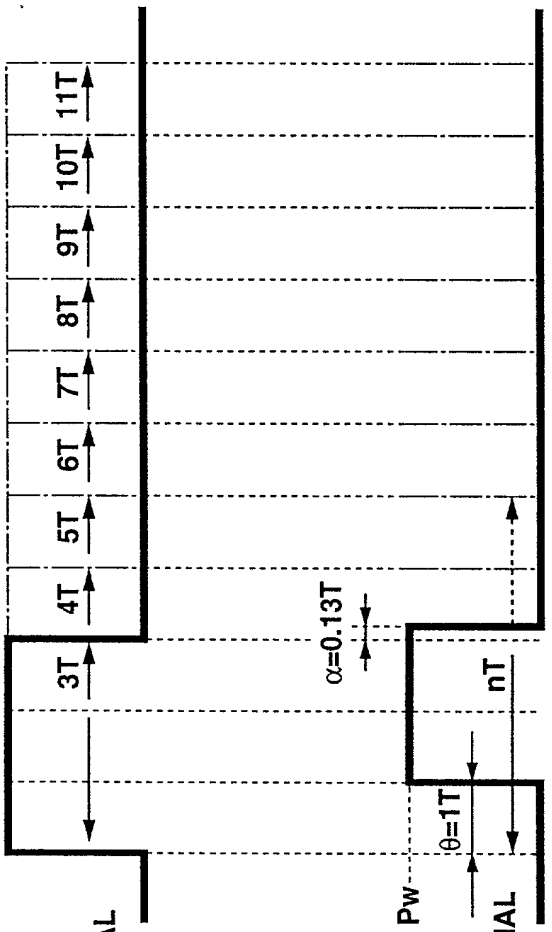

3T
4T
5T
6T
7T
8T
9T
10T
11T
EFM SIGNAL

FIG.1A

α=0.13T
nT
θ=1T
Pw
EQEFM SIGNAL
0

FIG.1B

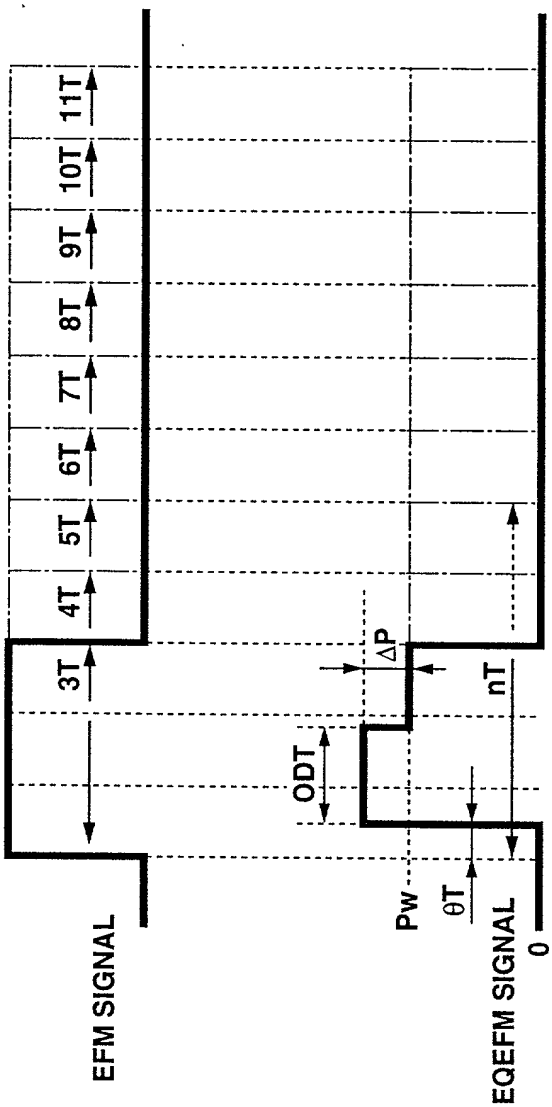


FIG.2A

FIG.2B

FIG.3A EFM DATA

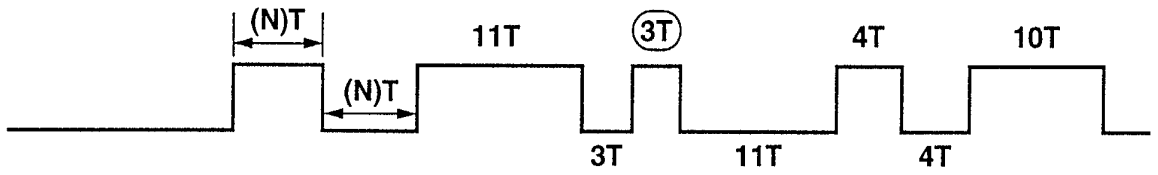
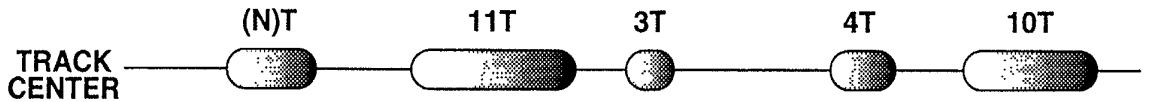


FIG.3B PIT



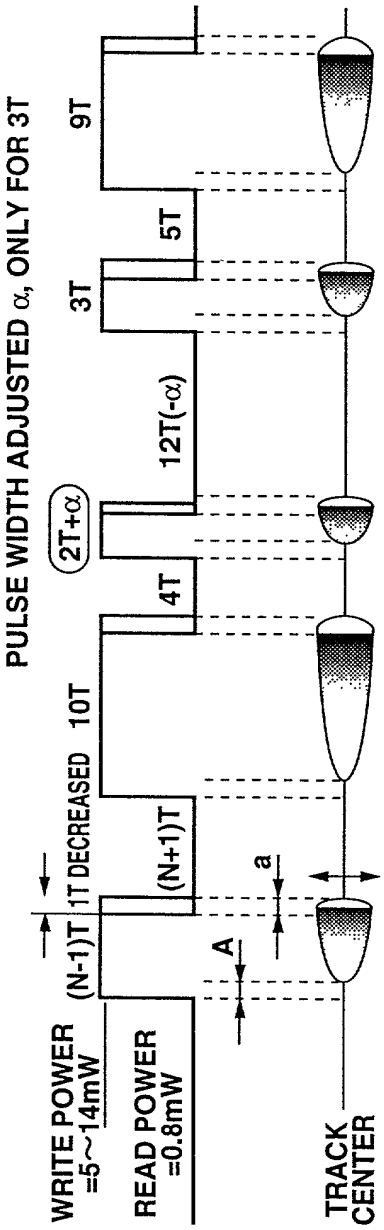

PULSE WIDTH ADJUSTED α, ONLY FOR 3T
9T
5T
3T
12T(-α)
2T+α
4T
10T
(N+1)T
1T DECREASED
(N-1)T
a
A
WRITE POWER
=5~14mW
READ POWER
=0.8mW
LD POWER
(ON TRANSVERSE
STACKING)
TRACK
CENTER
PIT

FIG.4A

FIG.4B

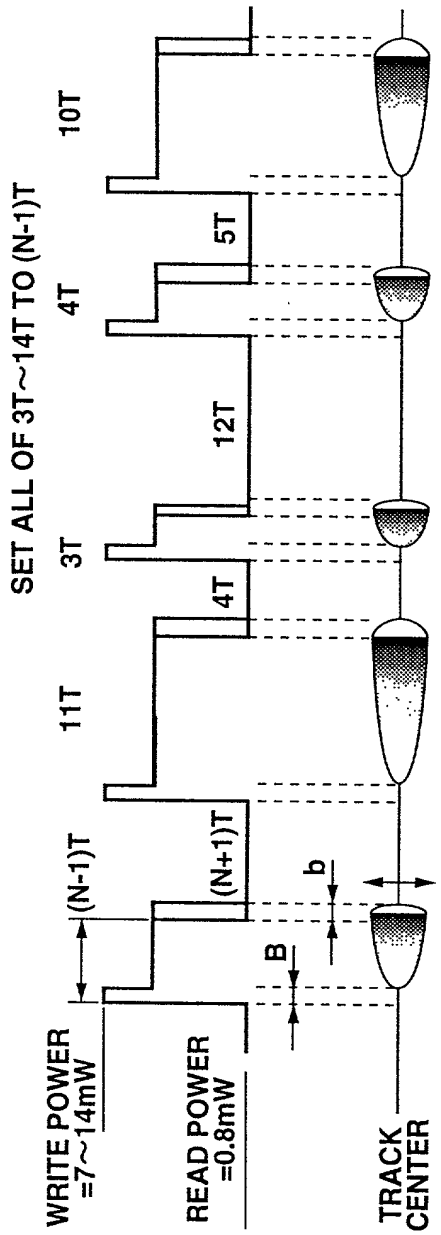

SET ALL OF 3T~14T TO (N-1)T
10T
5T
4T
12T
3T
4T
11T
(N-1)T
(N+1)T
b
B
WRITE POWER
=7~14mW
READ POWER
=0.8mW
LD POWER
(ON TRANSVERSE
STACKING)
TRACK
CENTER
PIT

FIG.5A

FIG.5B

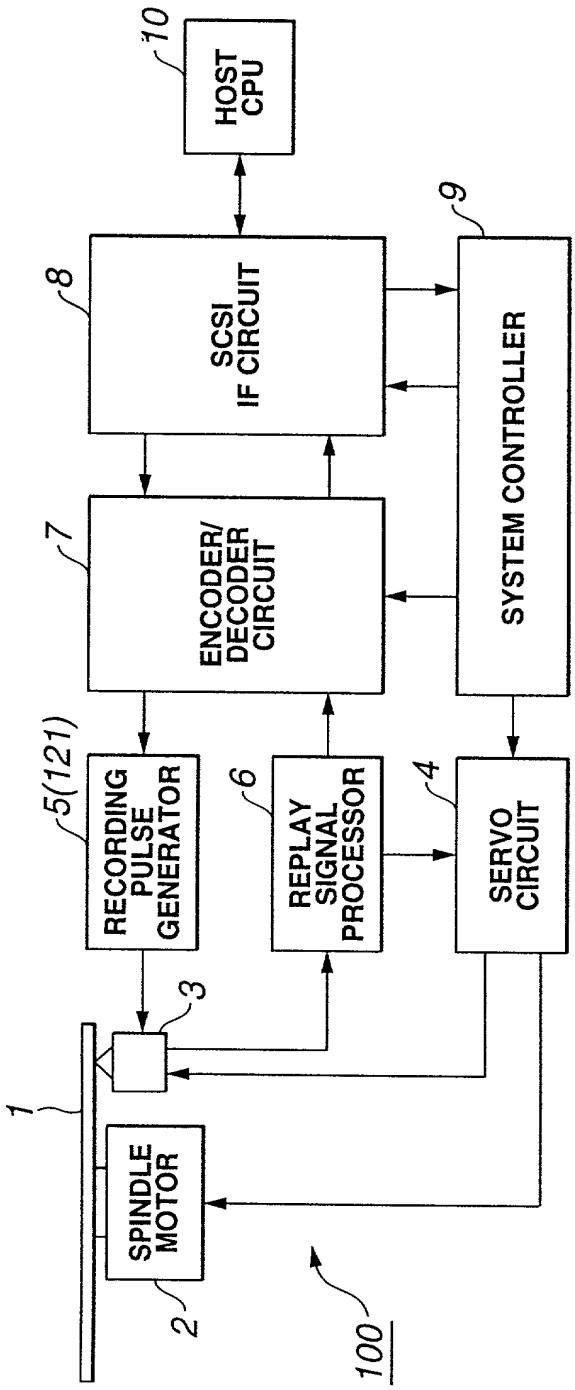

10
HOST CPU
8
SCSI IF CIRCUIT
9
SYSTEM CONTROLLER
7
ENCODER/ DECODER CIRCUIT
5(121)
RECORDING PULSE GENERATOR
6
REPLAY SIGNAL PROCESSOR
4
SERVO CIRCUIT
3
1
SPINDLE MOTOR
2
100

FIG.6

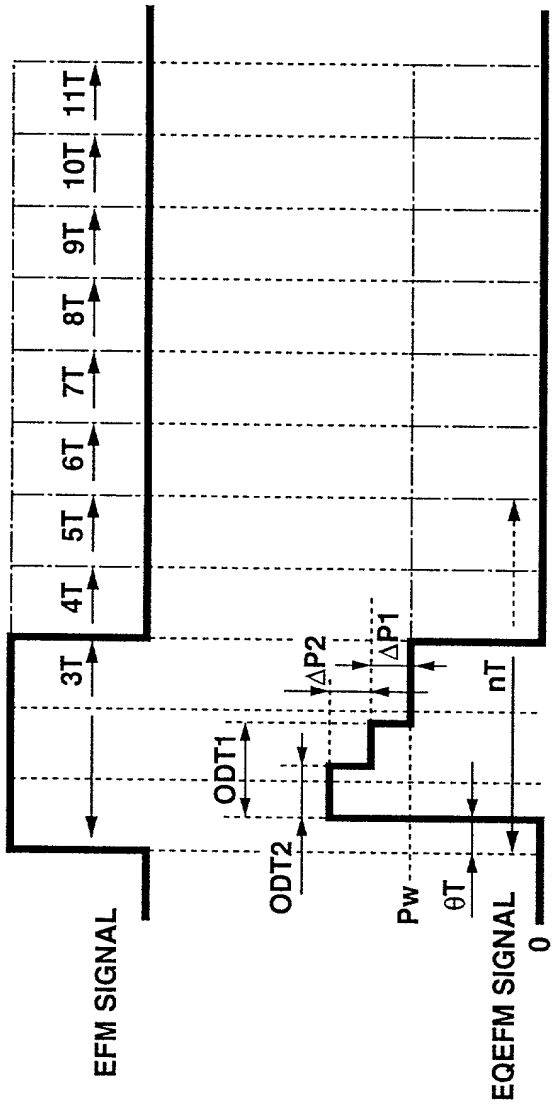


FIG.7

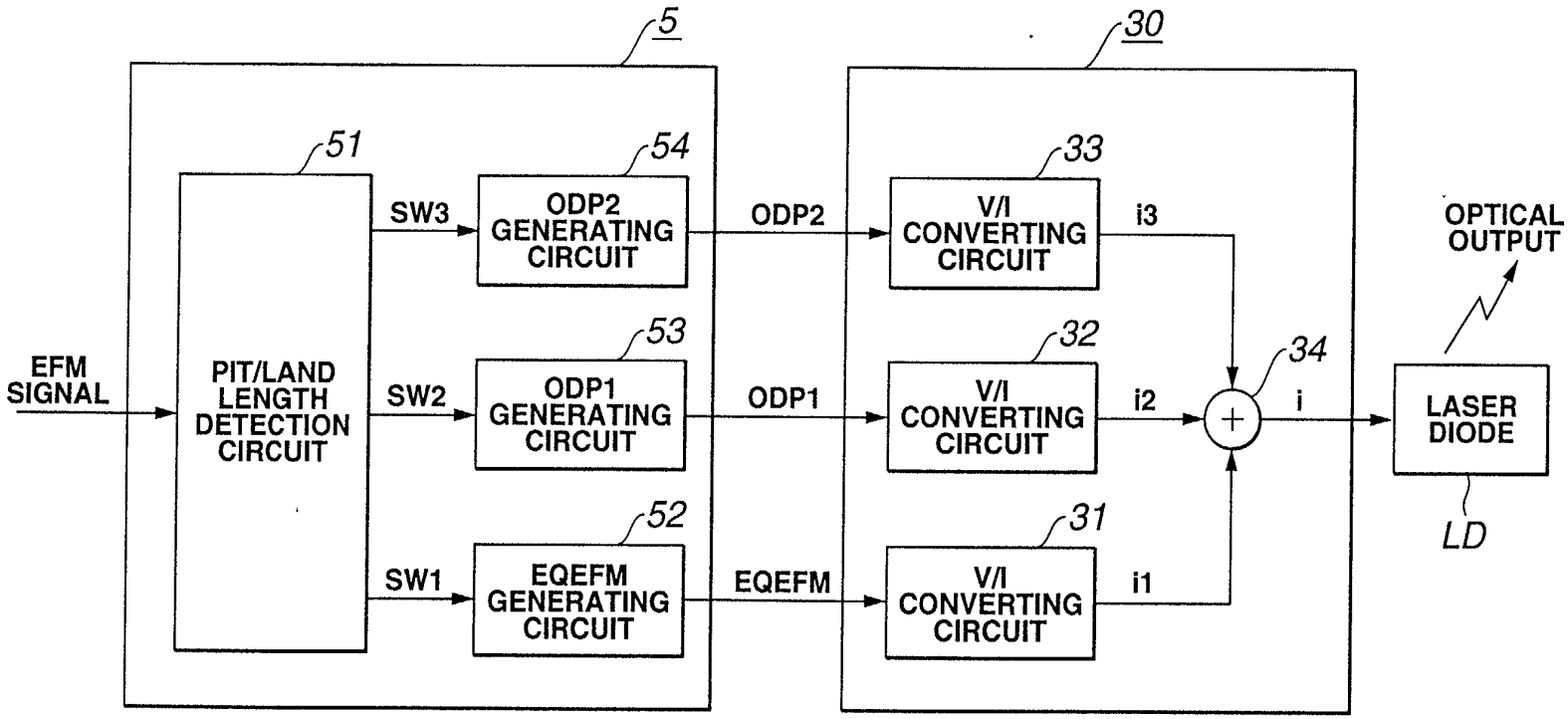


FIG.8

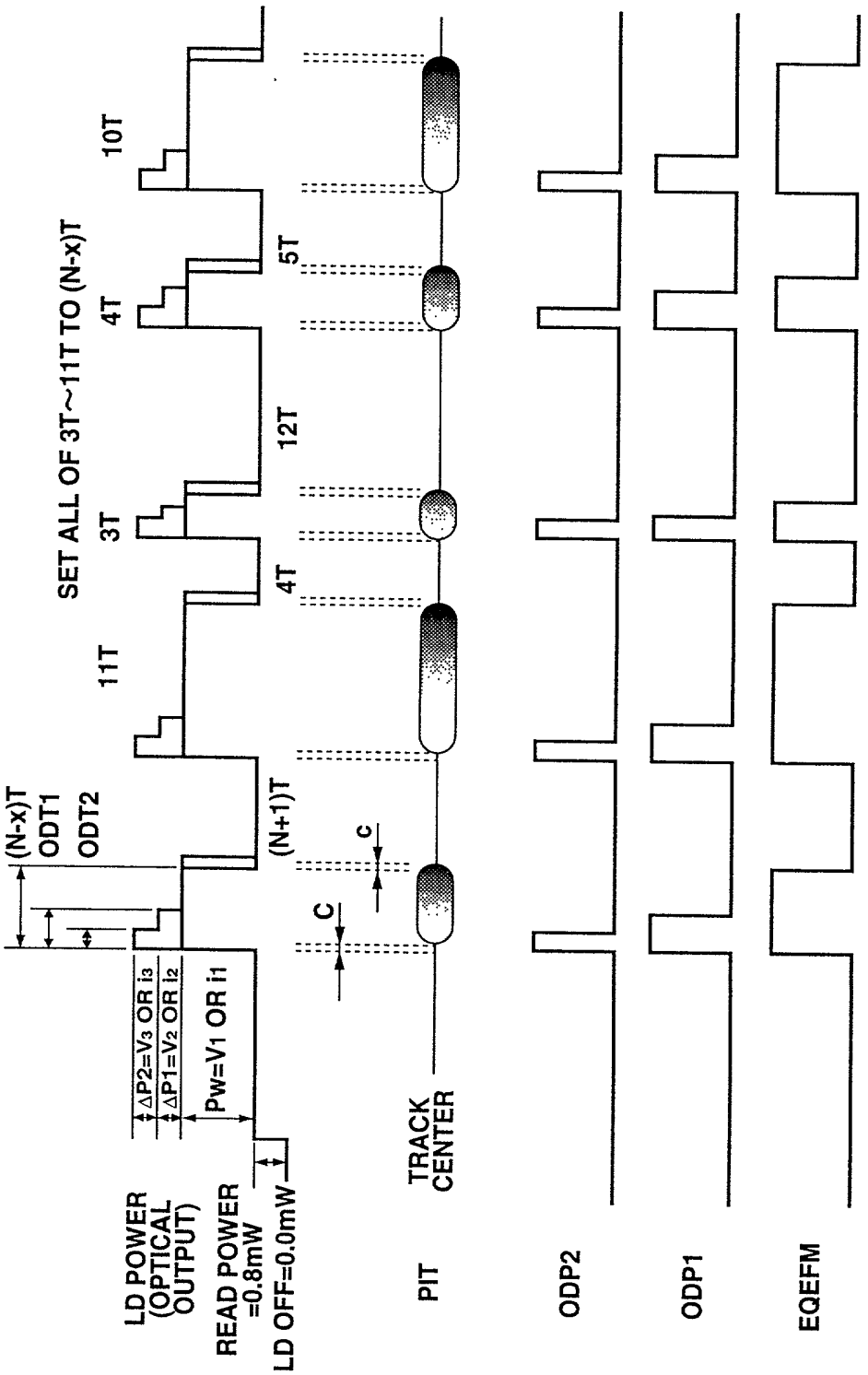

LD POWER (OPTICAL OUTPUT)
READ POWER =0.8mW
LD OFF=0.0mW
ΔP2=V3 OR i3
ΔP1=V2 OR i2
Pw=V1 OR i1
(N-x)T
ODT1
ODT2
11T
SET ALL OF 3T~11T TO (N-x)T
3T
4T
10T
4T
5T
12T
(N+1)T
C
c
PIT
TRACK CENTER
ODP2
ODP1
EQEFM

FIG.9

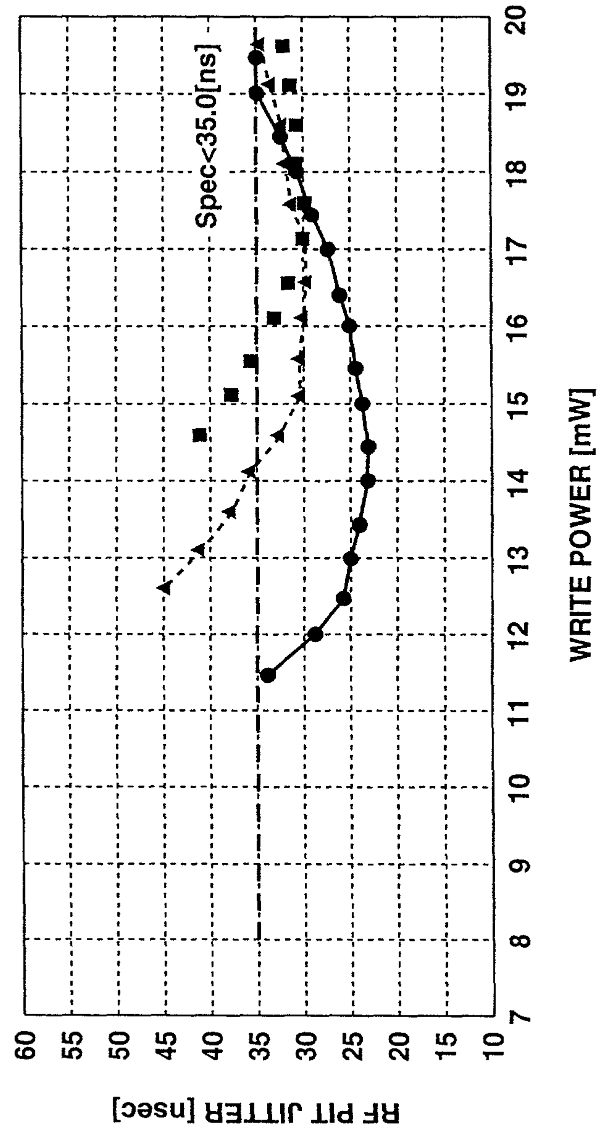


FIG.10

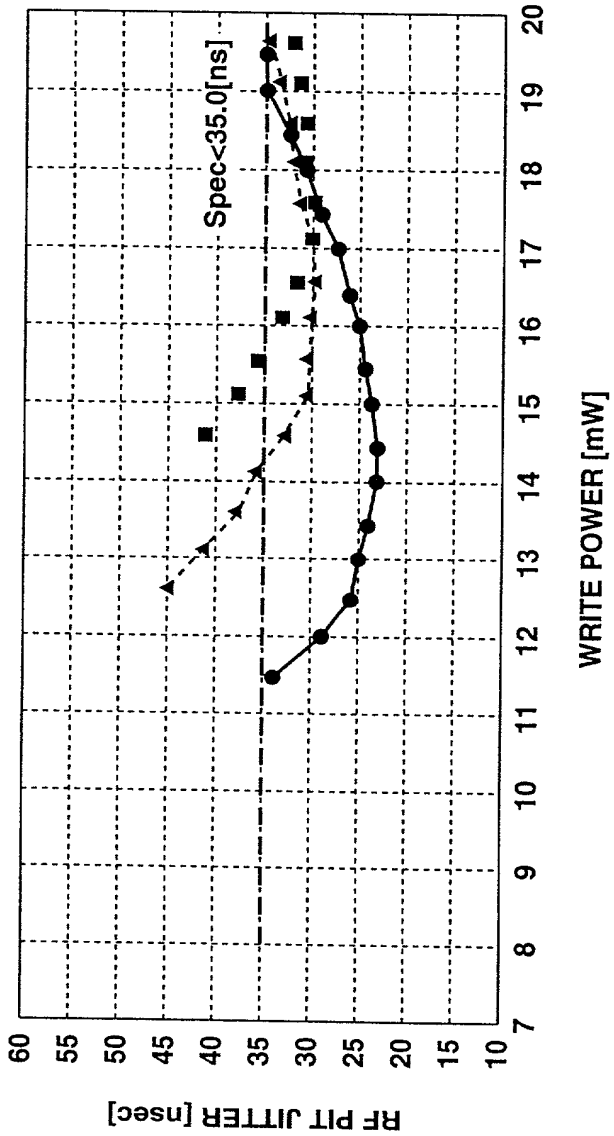

Spec<35.0[ns]
RF PIT JITTER [nsec]
WRITE POWER [mW]
60
55
50
45
40
35
30
25
20
15
10
7
8
9
10
11
12
13
14
15
16
17
18
19
20

FIG.11

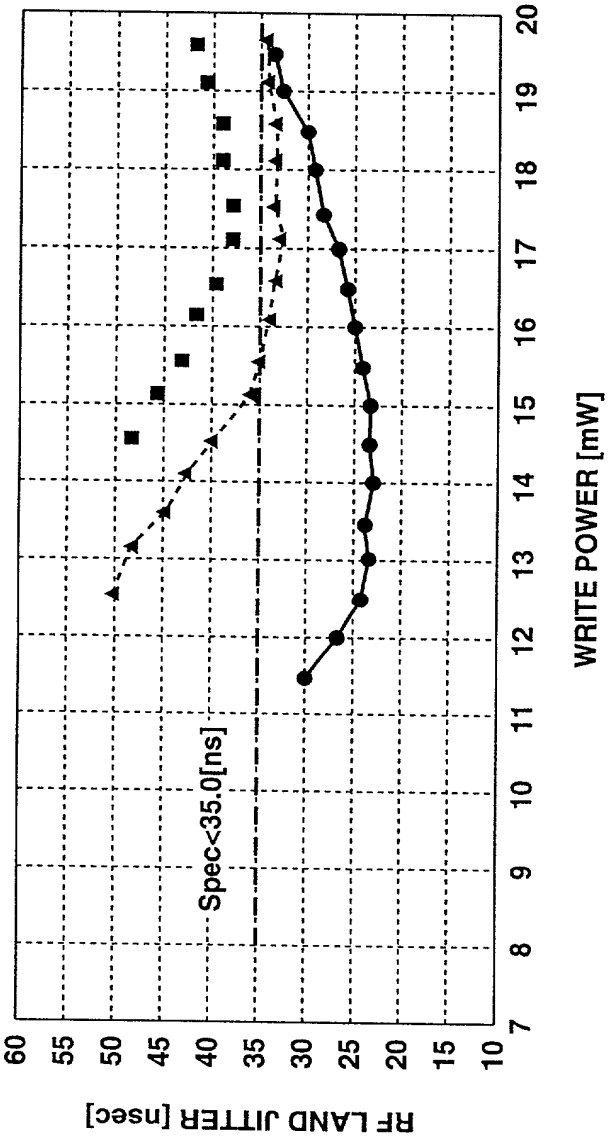

RF LAND JITTER [nsec]
60
55
50
45
40
35
30
25
20
15
10
Spec<35.0[ns]
7
8
9
10
11
12
13
14
15
16
17
18
19
20
WRITE POWER [mW]

FIG.12

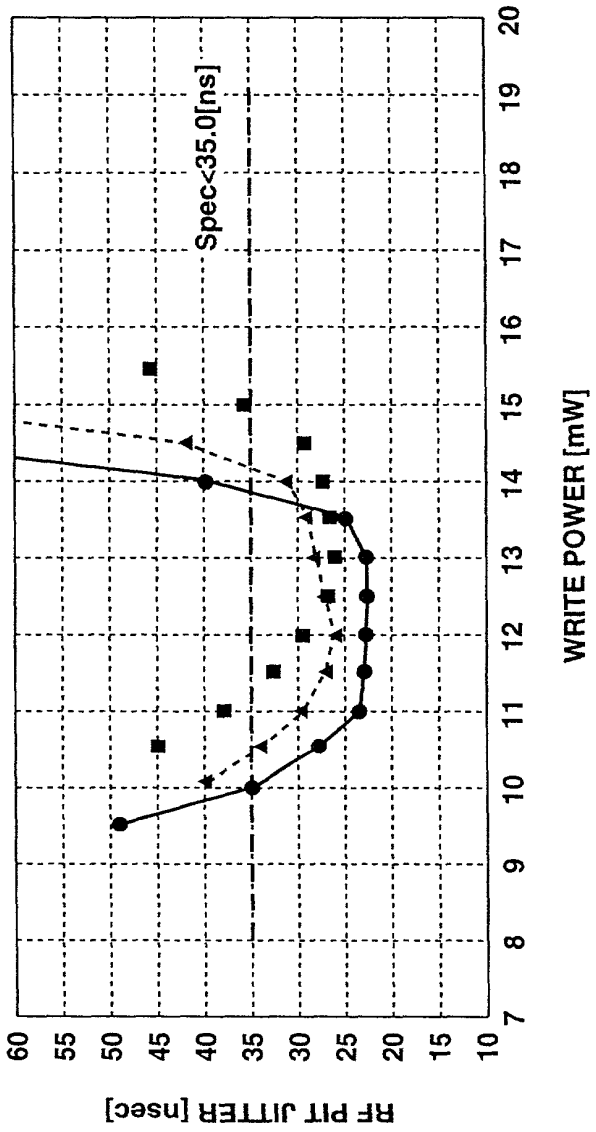

Spec<35.0[ns]
RF PIT JITTER [nsec]
WRITE POWER [mW]
60
55
50
45
40
35
30
25
20
15
10
7
8
9
10
11
12
13
14
15
16
17
18
19
20

FIG.13

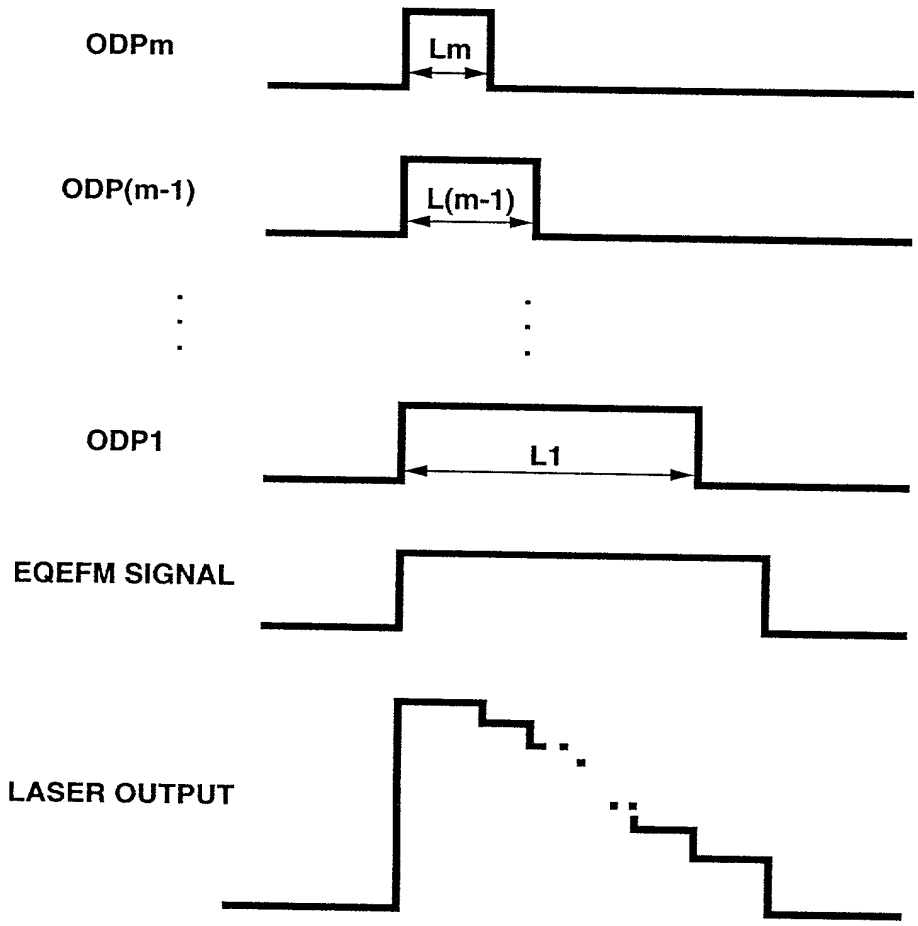


FIG.14

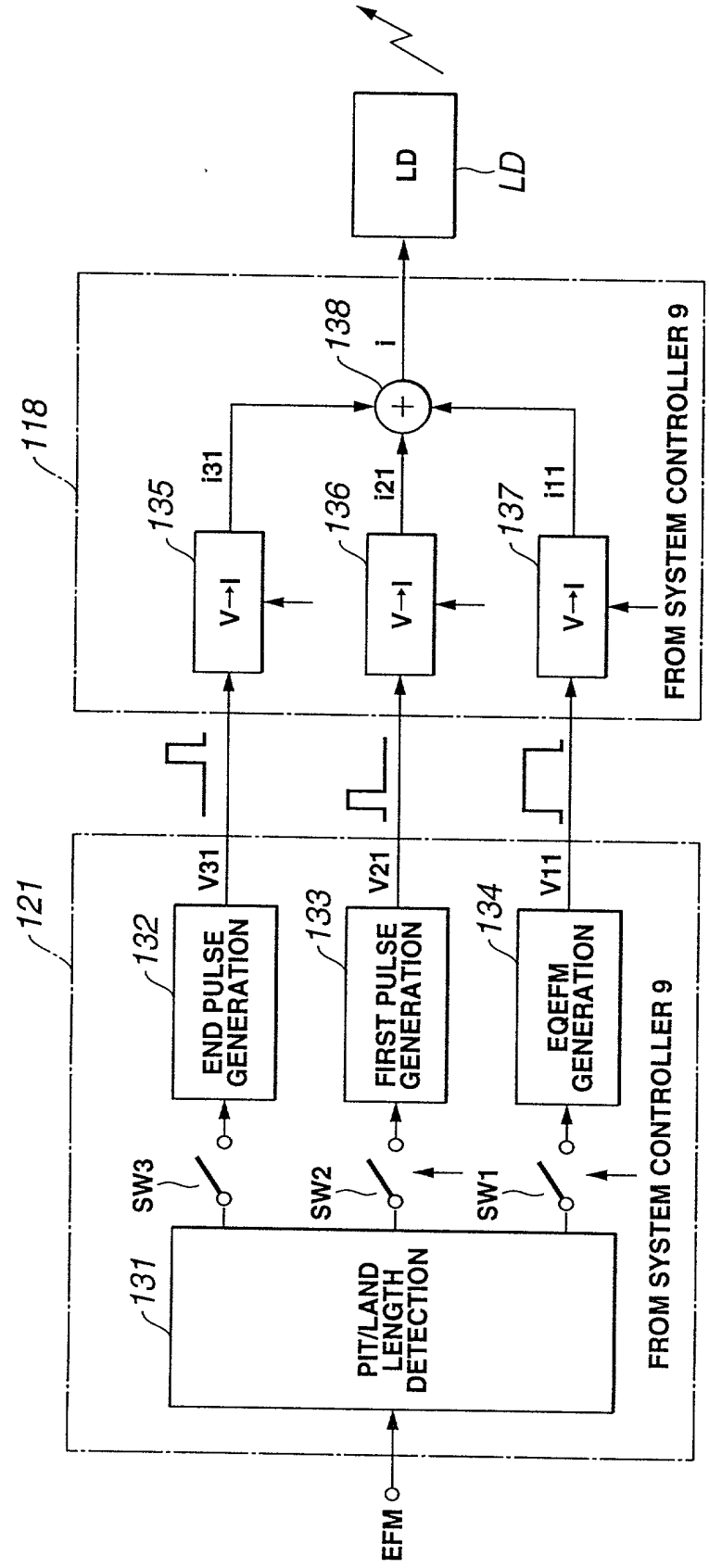

LD
LD
138
i
118
135
i31
136
i21
137
i11
V→I
V→I
V→I
FROM SYSTEM CONTROLLER 9
121
132
END PULSE GENERATION
V31
133
FIRST PULSE GENERATION
V21
134
EQEFM GENERATION
V11
SW3
SW2
SW1
131
PIT/LAND LENGTH DETECTION
FROM SYSTEM CONTROLLER 9
EFM

FIG.15

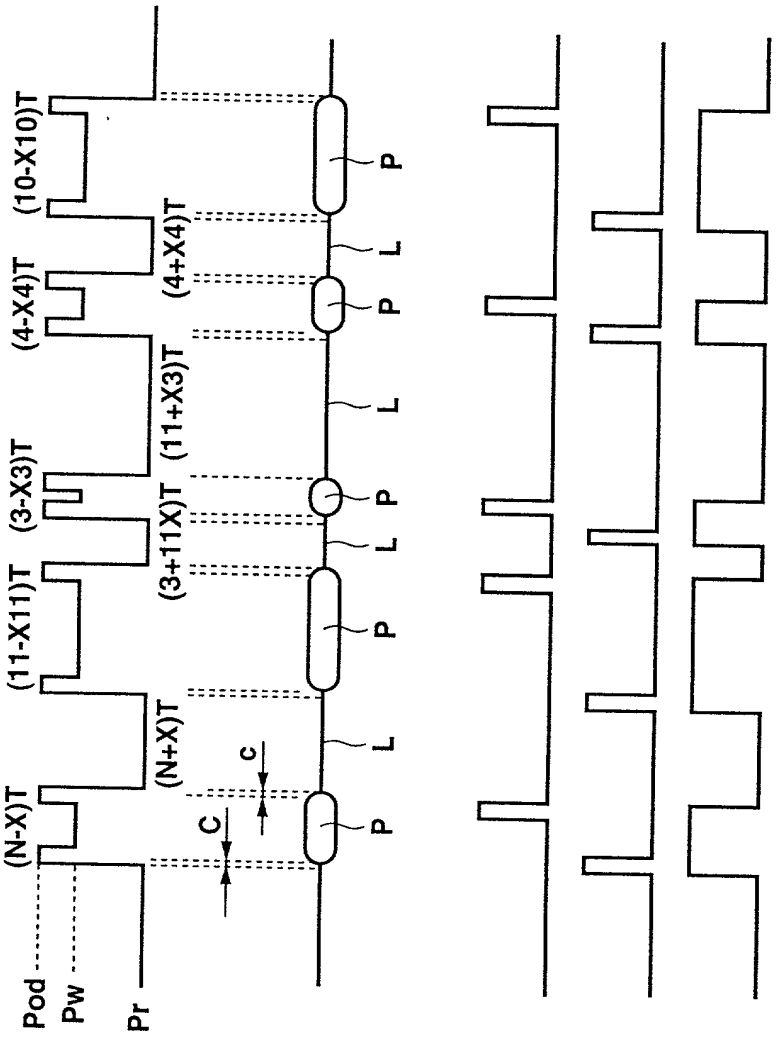


FIG.16A

FIG.16B

FIG.16C

FIG.16D

FIG.16E

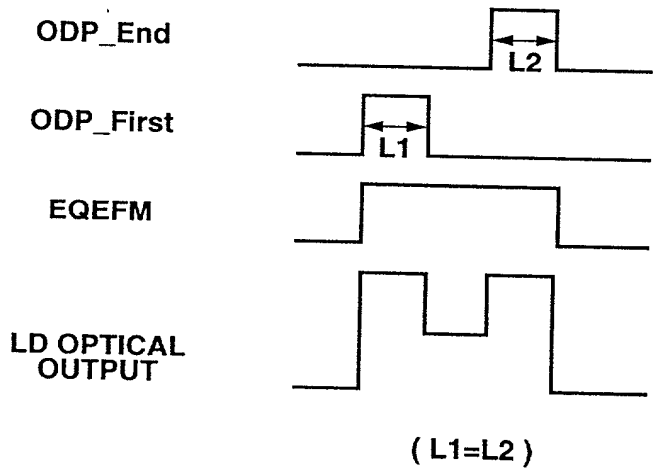


FIG.17

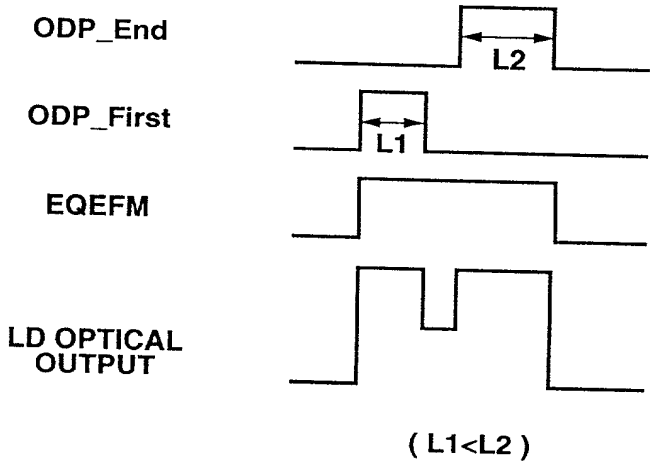


FIG.18

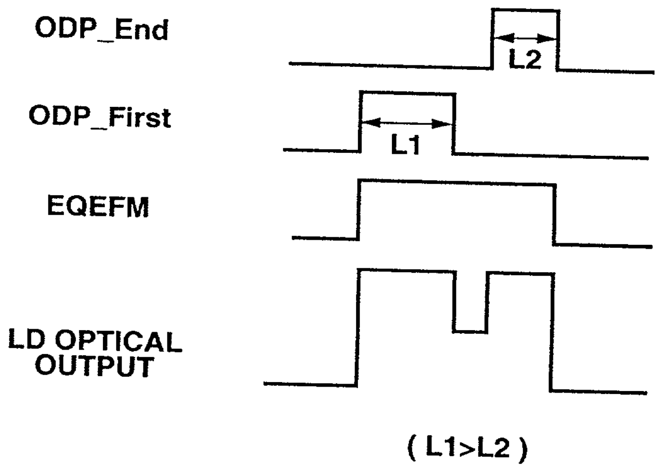

ODP_End
L2
ODP_First
L1
EQEFM
LD OPTICAL OUTPUT
(L1>L2)

FIG.19

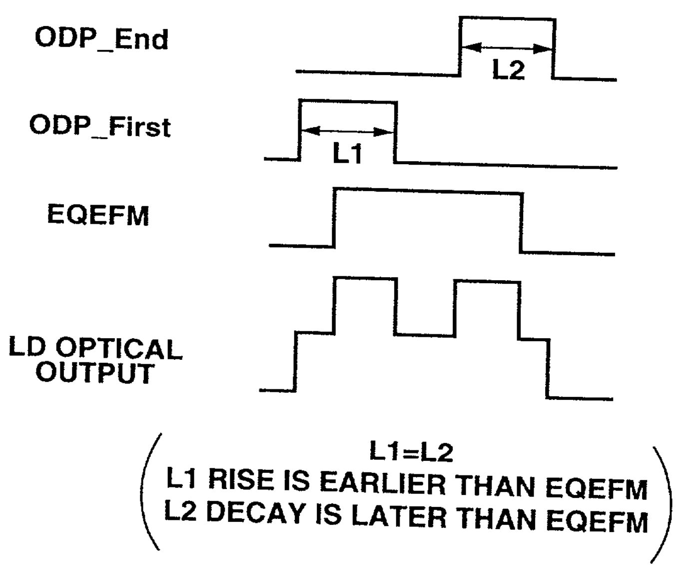

ODP_End
L2
ODP_First
L1
EQEFM
LD OPTICAL OUTPUT
L1=L2
L1 RISE IS EARLIER THAN EQEFM
L2 DECAY IS LATER THAN EQEFM

FIG.20

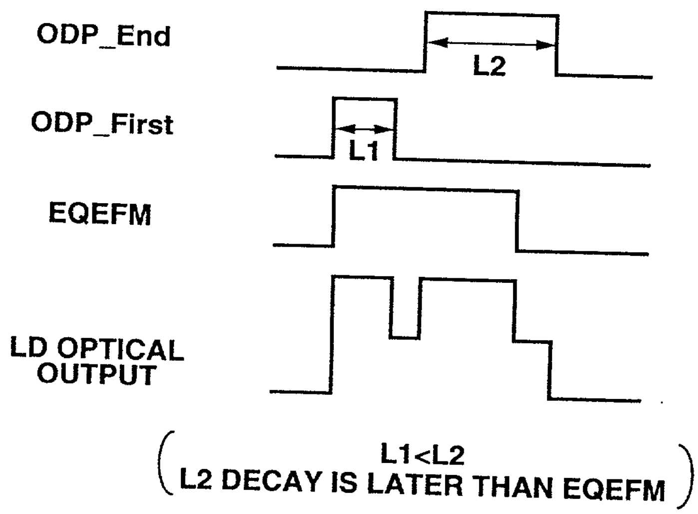


FIG.21

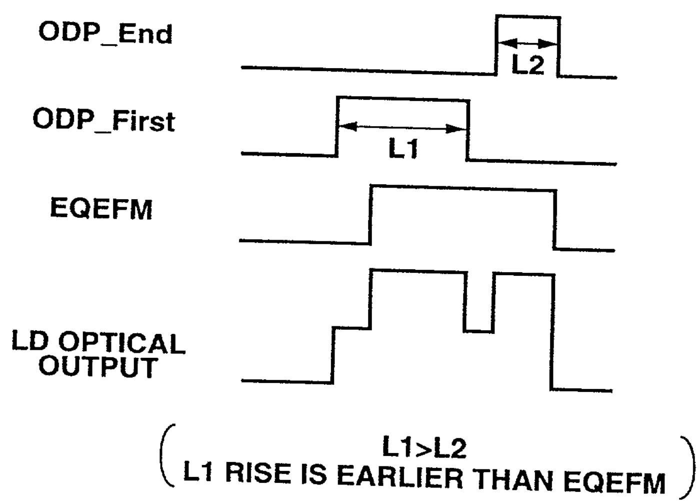


FIG.22